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FISH AND WILDLIFE SERVICE

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RESEARCH VESSEL TO AID RED TIDE CONTROL

Secretary of the Interior Douglas McKay today announced the allotment of funds for the purchase of a research vessel to be based at Fort Myers, Fla., to combat the "red tide", a plague which periodically kills millions of fish in the waters off the west coast of Florida. The vessel is to cost approximately \$50,000, equipped, and operating funds will come to about \$10,000.

The new vessel will allow a more intensive study of the causes of "red tide" and will help in the effort to control the menace.

At infrequent and sporadic intervals over the past 100 years, there have been mass mortalities of fish on the central west coast of Florida, caused by swarming of a microscopic organism called Gymnodinium brevis.

Such episodes occur only in this part of the Gulf of Mexico. They also occur elsewhere in the world, nearly always in the same places. They are always caused by certain species of a class of organisms called dinoflagellates (having attributes of both plants and animals) which give off substances poisonous to fish and other marine animals.

Both commercial and sports fishing are adversely affected during the fish kills although no permanent decrease in fish abundance has been noted.

Long periods can elapse without red tides. No outbreaks were recorded between 1916 and 1946. Outbreaks have occurred with abnormal frequency since 1946. Between November 1946 and March 1947 dead fish and discolored water extended 125 miles from Naples, Fla., on the south to Clearwater, Fla., on the north, and seaward about 20 miles. A smaller red tide occurred briefly in November 1952. Another appeared in September 1953.

After the large outbreak of 1946-47 the Fish and Wildlife Service commenced biological studies to learn the principles underlying the causes of these blooms, with the aim of developing control or preventive measures. The studies to date indicate that the blooms seem to occur after periods of heavy rain followed by light winds blowing toward the shore. The water, enriched by land drainage, is held along the coast, thus developing conditions suitable for rapid reproduction of the microorganisms. As fish are killed, their decaying bodies are believed to release nutrients to the waters. These nutrients nourish the bloom and serve to intensify it.

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